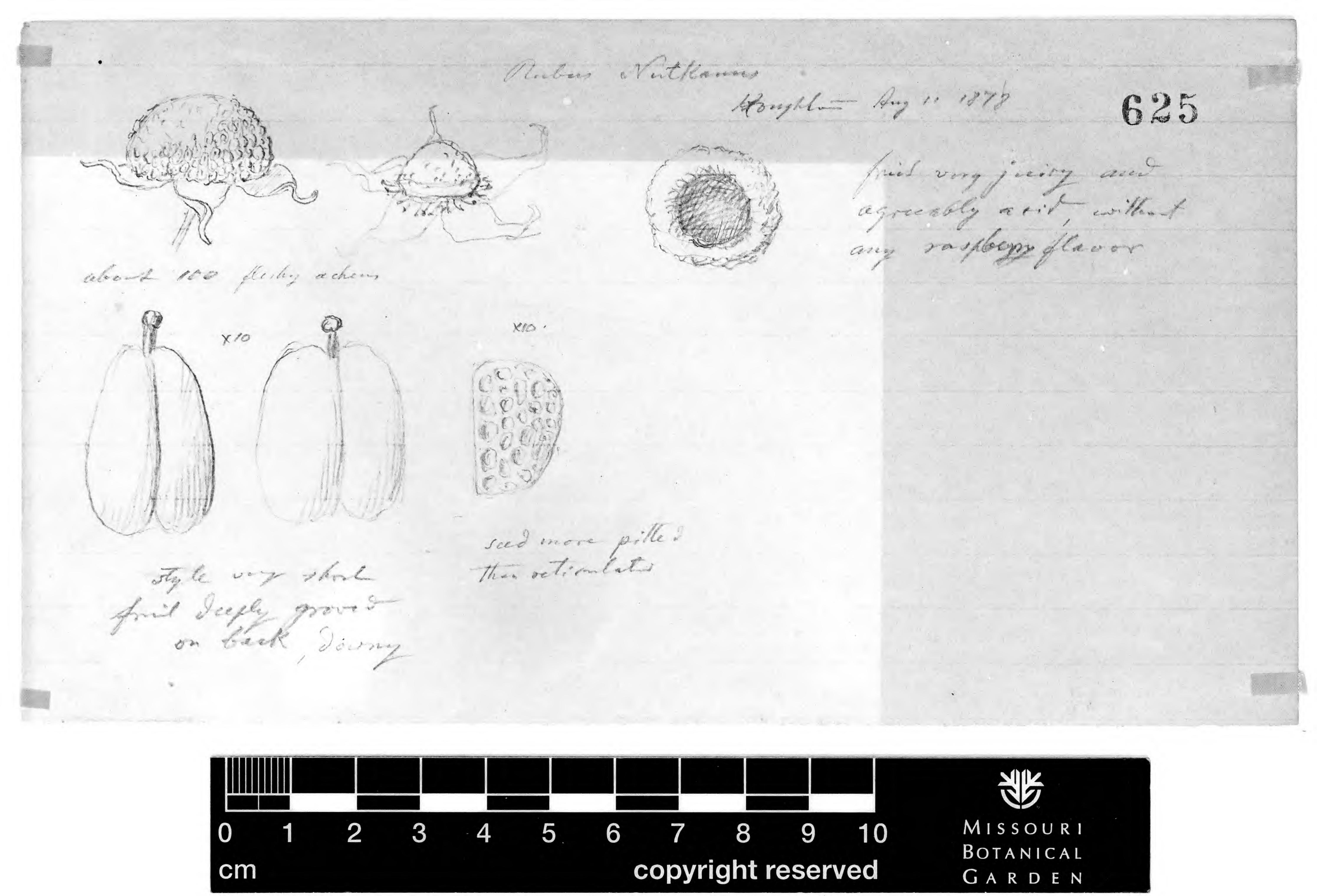


GEORGE ENGELMANN BOTANICAL NOTEBOOKS

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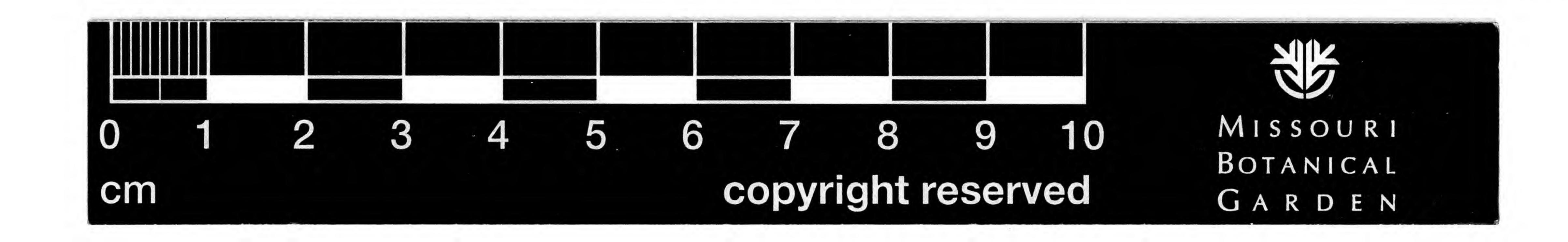
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MISSOURI BOTANICAL GARDEN

MISSOURI BOTANICAL GARDEN

GEORGE ENGELMANN PAPERS



BOTANICAL INDEX.

I hope that these explanations, which you desired to have, will interest you; and in case you should make any use of them in your Botanical Index, you will confer a favor on me by addressing to me such numbers as will contain them.

VARIETIES OF BEGONIA DISCOLOR-REX.

[Sent out for sale the first time in October, 1878. First Prize awarded at the great International Flower Exhibition at Versailles, August, 1878. First Prize awarded at the Autumn Flower Exhibition of Bordeaux, September, 1877.]

The following varieties are placed on sale, with the accompanying description:

1.—Mme. Svahn.

Very large and magnificent foliage, fully able to compete with the most beautiful varieties of the hot-house; of a purple color in the beginning, turning into a dark green bronze, all spotted with silvery white; in the free air, strewed with a carminered; stems, petioles, and the back of the leaves, a purple-red. A robust plant, with thick and strong stems, and a magnificent bearing. Price: one plant, 12 francs.

3.— Souvenir de Dr. Weddell.

Plant dwarfish, bushy, with small foliage, but of a coloring extremely remarkable; the inferior (under) face is of a dark blood-red, the superior (upper) face is strewed and pointed with spots and white dots, all of which is covered with a very marked rose color; the young leaves of a lively rose; altogether of a very attractive coloring. Price: one plant, 10 francs.

4.—Edward Andre.

Plant having the vegetation, the vigor, the size and form of the leaves of the B. discolor; flowering early. Very beautiful foliage; in its young age, of a dark purple, turning successively into a bronze-antique uniform color, with very brilliant reflections; the back of the leaves and the petioles of a dark red. A distinct and very beautiful variety. Price: one plant, 10 francs.

5.-Lucienne Bruant.

A rustic plant; half shrubby, very compact foliage; of remarkable vigor. Large leaves, cordiform, with a bright green inferior (under) face, rose washed around the edgings, which are shaded into purple; the superior (upper) face of a dark green, all spotted and strewed with points of a silvery-white; a magnificent variety. Price: one plant, 10 francs; three plants, 20 francs.

6.—A Carriere.

Plant with a branching and gracious form; of a nice foliage, entirely covered with a silver-colored and metallic white; spotted with carmine when grown; the back of a light rose, with purple edges; free bloomer. Price: one plant, 10 francs.

7.—W. E. Gumbleton.

A very vigorous plant; very thick, robust stems; bloom abundant; leaves very large; the inferior (under) face of a tender green, rose washed; superior (upper) face a lively green around the edges, with a shading of grey, lead color, very metallic. A variety remarkable for its luxuriant vegetation. Price: one plant, 10 francs; three plants, 20 francs.

8.—Countess Gabrielle de Clermont-Tonnerre.

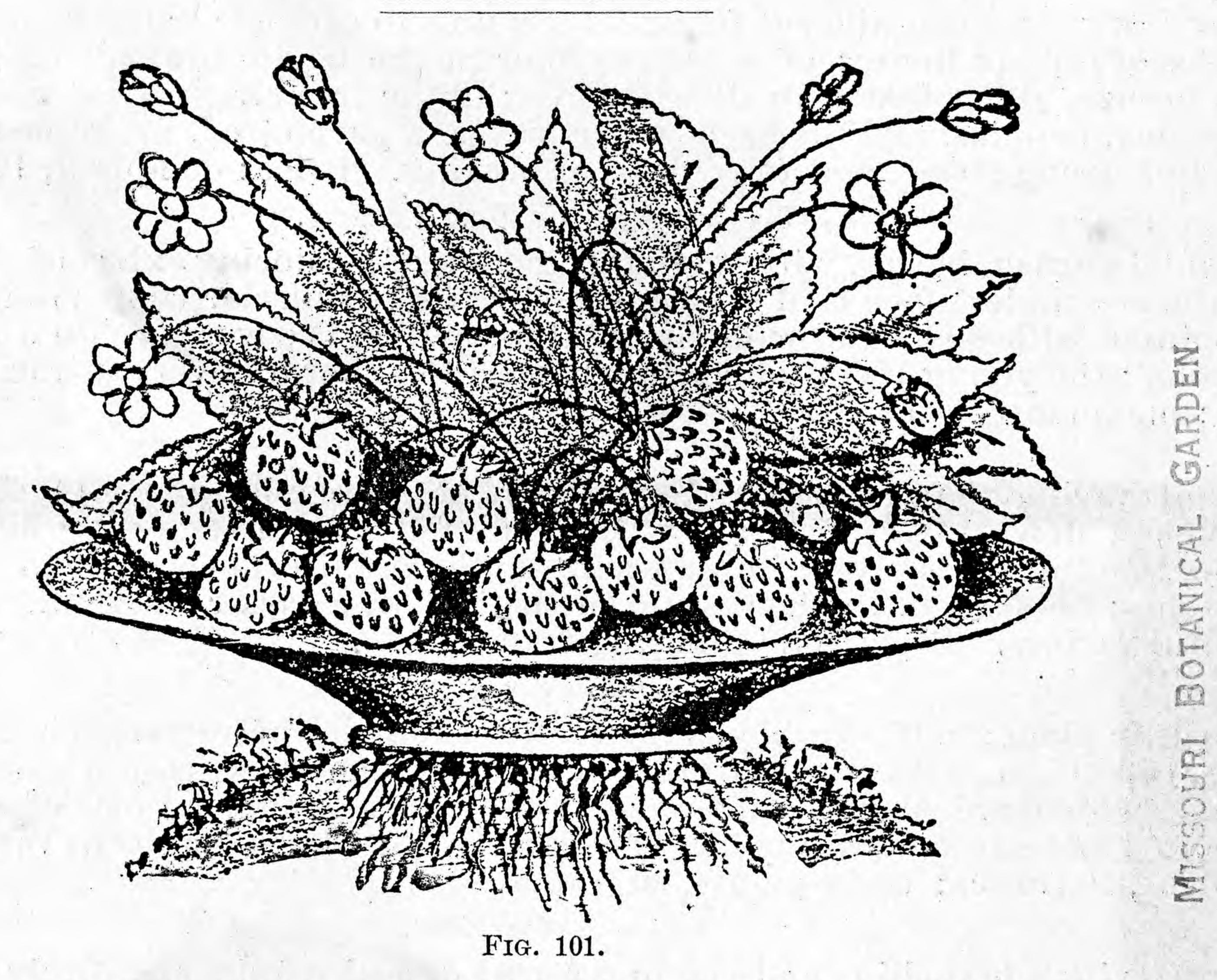
Plant of medium size, compact and abundant foliage of a particular form, undulating and figured. At first its leaves are of a lively rose with sparkling reflections, turning successively into divers shades, up to a rosy-grey with green edges; its inferior face and petioles are of a dark purple-red; a very beautiful grouping of colors. Price: 12 francs.

10.—Marguerite Bruant.

Leaves of medium size, fine form, ending in a sharp point, with a silvery-white drawing upon a meadow-green ground, its back of a tender rose. A vigorous plant, of very robust and rapid growth, forming pyramidal thickets with a very leafy base. A variety with a great prospect for summer massing or bedding. Price: one plant, 10 francs; three plants, 20 francs.

[Nature has been very lavish in her gifts to the vegetable kingdom, and man by his efforts has added many strange combinations to these forms. In this case the art of man has succeeded in uniting two seemingly opposite forms (although of the same family) into a vigorous and healthy hybrid, preserving the characters of both, for which Mr. Bruant has also united the specific names of both parents as a general name for his hybrids. In reading his descriptions, however, we are almost inclined to think that Discolor-Splendens would have represented the original species more correctly than Discolor-Rex, as it seems evident to us that the Splendens, or silver-leaf variety, is the hot-house variety used for fertilizing the flowers of B. discolor. Begonia Splendens has a silvery-white leaf, veined and bordered with green, and is

Java among the first of the species. Begonia Rex was not introduced until 1858, and can only be considered as a type from the fact of its producing such distinctly marked (zoned) leaves. Begonia Discolor is a native of China, and was introduced into Europe under the name of B. Evansiana, in 1804; consequently, it is one of the oldest known species of all the Begonias. But be that as it may, the facts remain the same, and all plant lovers will rejoice with Mr. Bruant at the result of his skill as a hybridizer and successful propagator. We also feel highly honored by the privilege conferred on us of first publishing his descriptions of the new plants.—L. B. Case.]



THE STRAWBERRY PROTECTOR.

We have just received from D. M. Dewey the above cut, (Fig. 101,) with a circular describing one of the most useful articles for fruit growers yet made. It is a cheap baked clay saucer, twelve to thirteen inches in diameter, with a hole in the center as shown in the cut. The great advantages in its use are: A much larger crop; much finer berries; cleaner, and free from dirt; mulching the ground; the retention of the rains to the roots of the vines; killing the weeds; earlier ripening; easier picking. They are turned over as a winter protection to the vines. Persons who have used it pronounce it the most important invention ever made in connection with strawberry raising.

DIRECTIONS FOR USE.—Be sure in placing the Protector over the plants to draw the earth up around the outside of the Protector, to prevent a circulation of cold air, and it will thus serve to fertilize the plant and keep it in good condition.

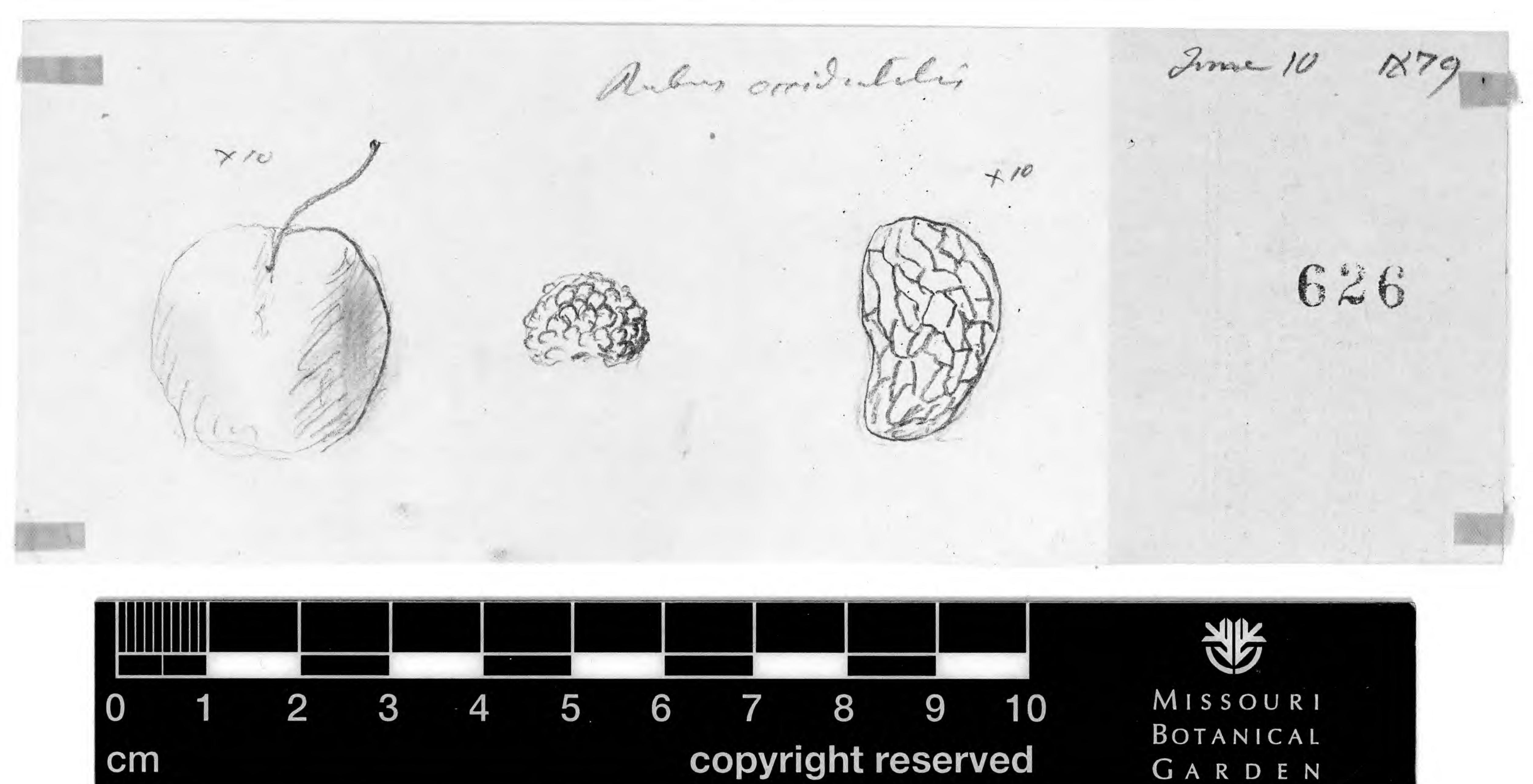
For show beds in Nurserymen's grounds it will prove a great desideratum. Every Nurseryman should have at once enough saucers ready for spring planting, to test them. The tests already made have proved so satisfactory that there can be no doubt of their great utility. For the family garden they will give universal satisfaction. For full particulars, send for a descriptive circular to D. M. Dewey, Rochester,

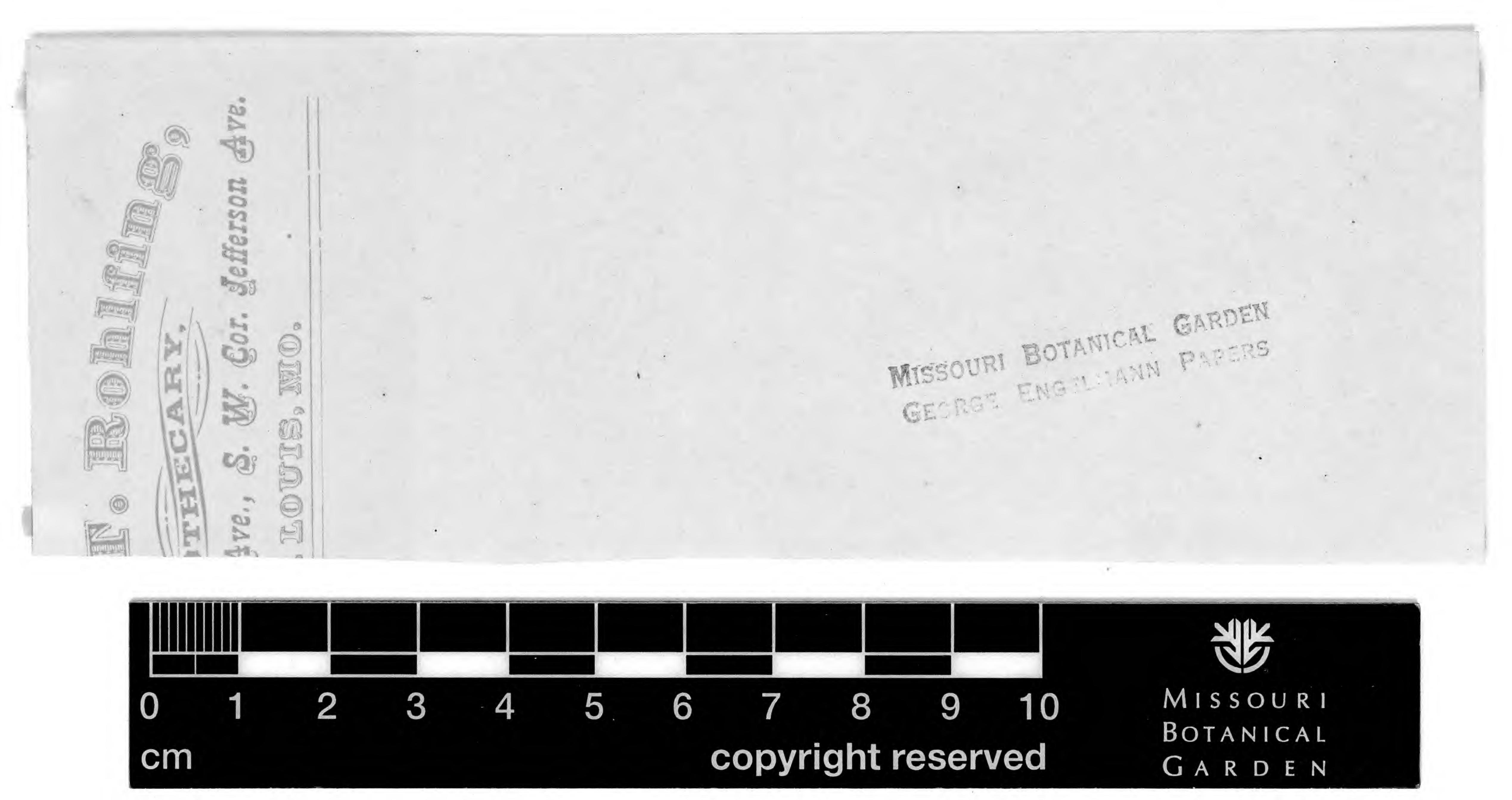
New York.

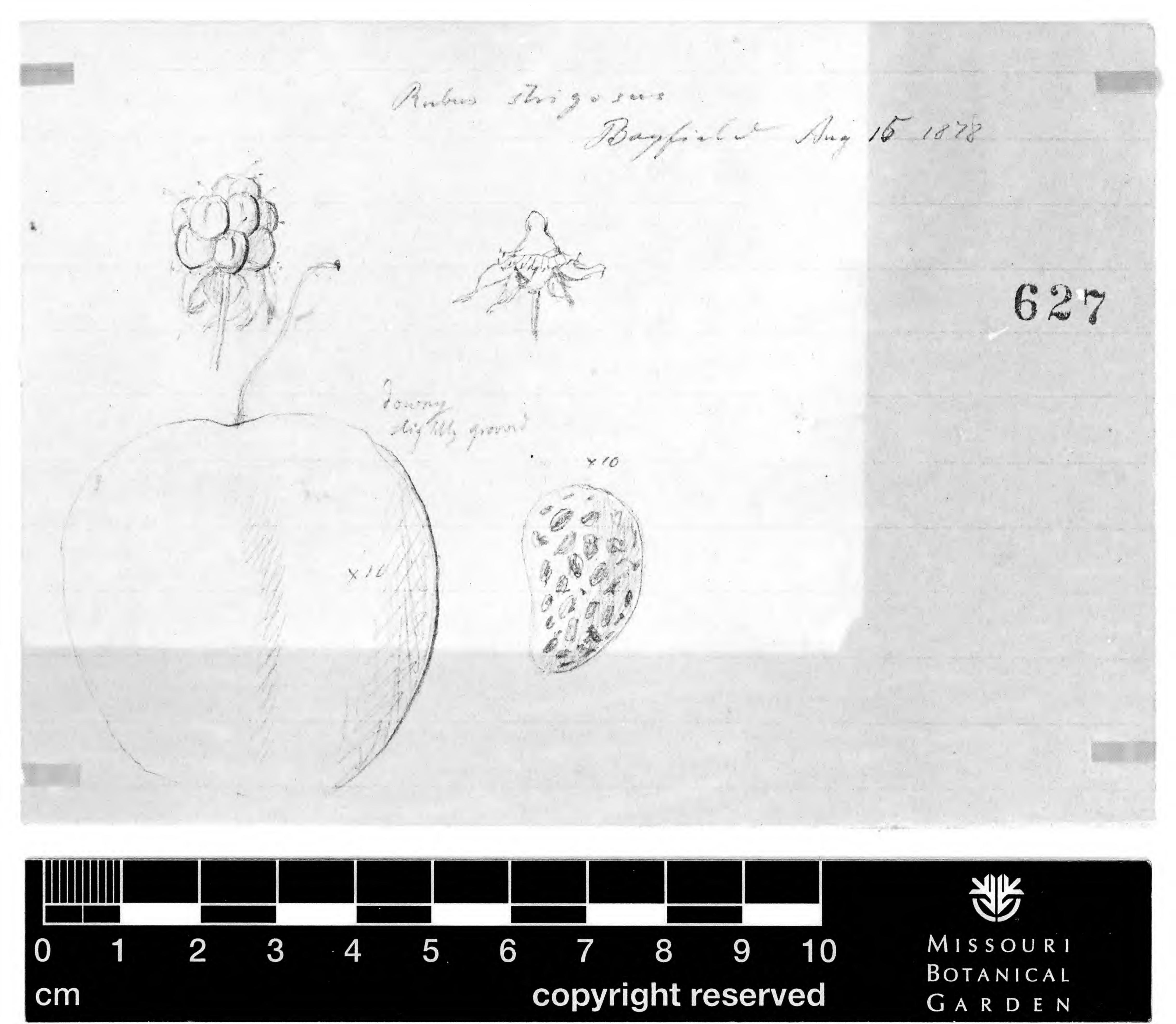
THE COLORED FRUIT PLATE,

Made for the use of nurserymen and tree dealers in the sale of fruit and ornamental trees, flowers, etc., is the invention of D. M. Dewey, of Rochester, N. Y. He has always made the finest work done in the country, always keeps a large stock, and makes more varieties, (numbering now over 2,000.) He has artists in his employ that have worked for him now over sixteen years. He sells these plates as low as any one can sell goods of equal quality; and as none of the imitators of his invention have either the stock or quality of his goods, it will be to the advantage of all wanting his stock to write him for catalogues and estimates before committing their orders to irresponsible parties.

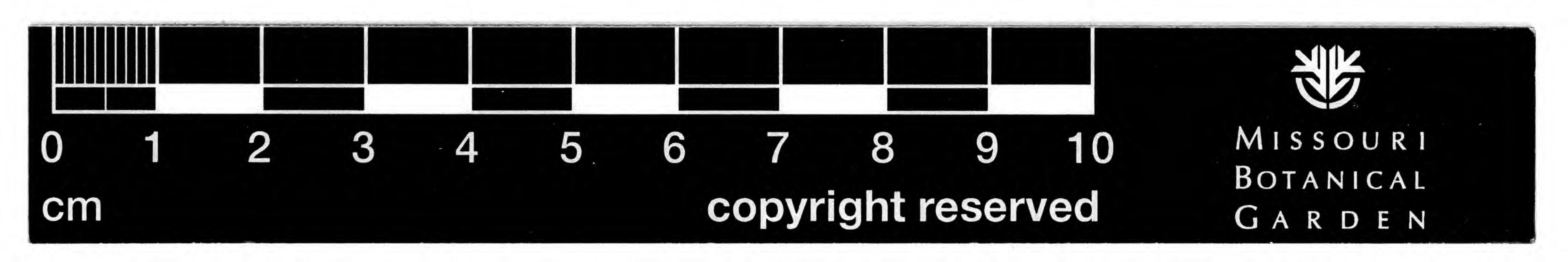


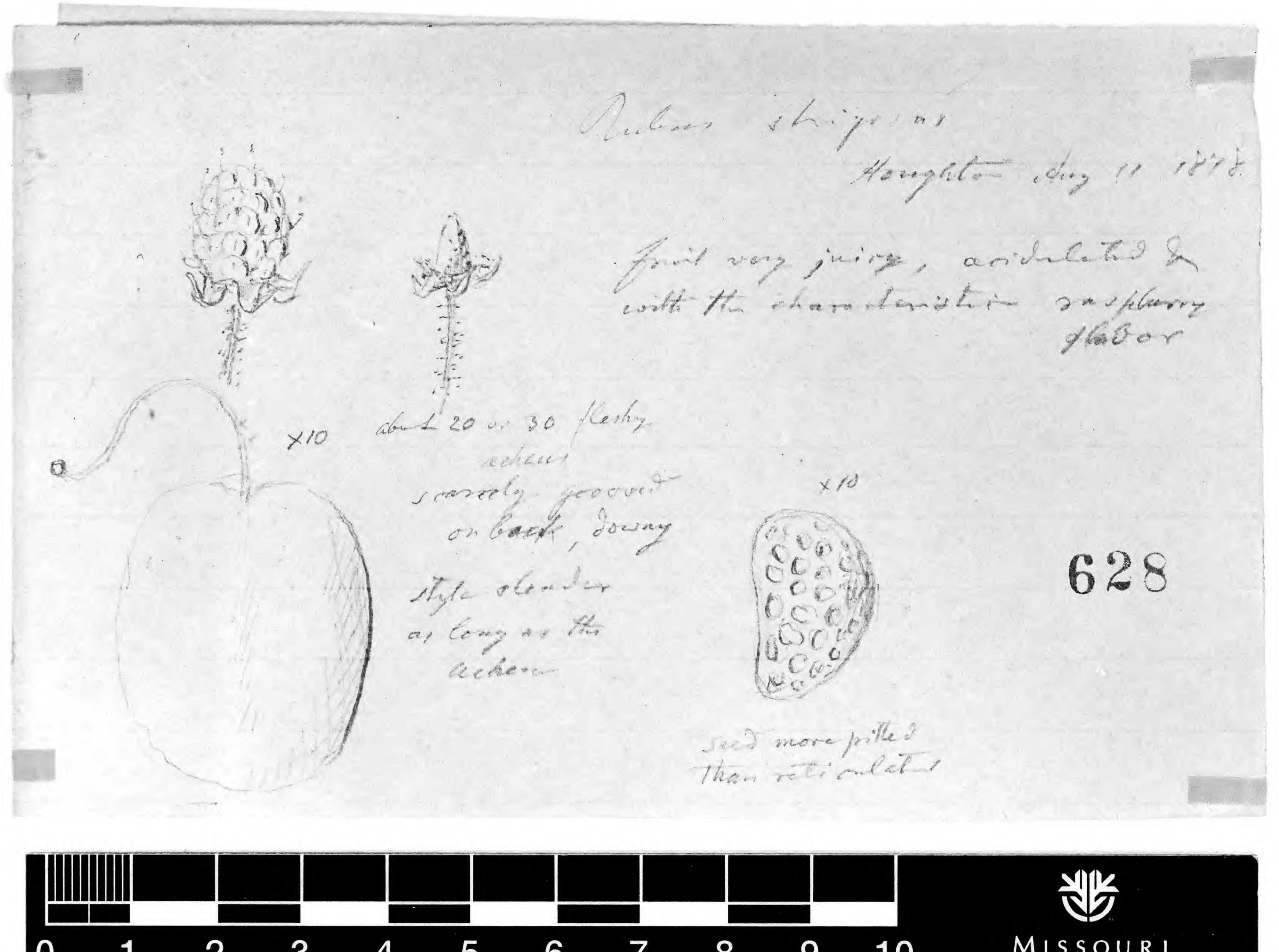






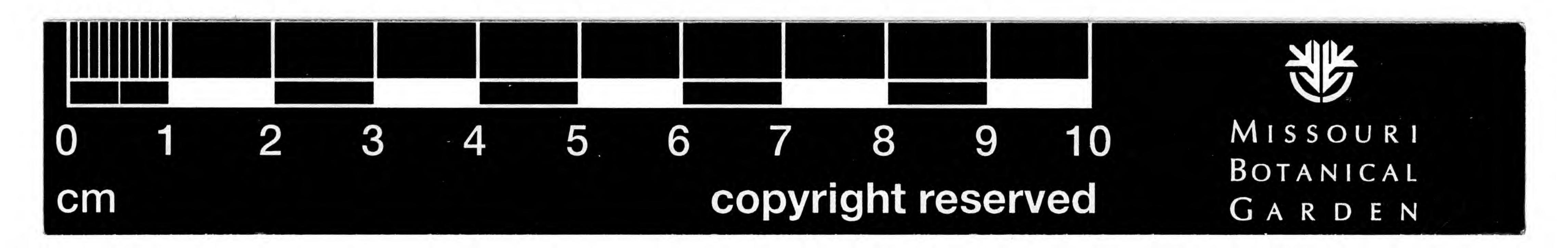
MISS ENGELMANN PAPERS
GEORGE ENGELMANN PAPERS

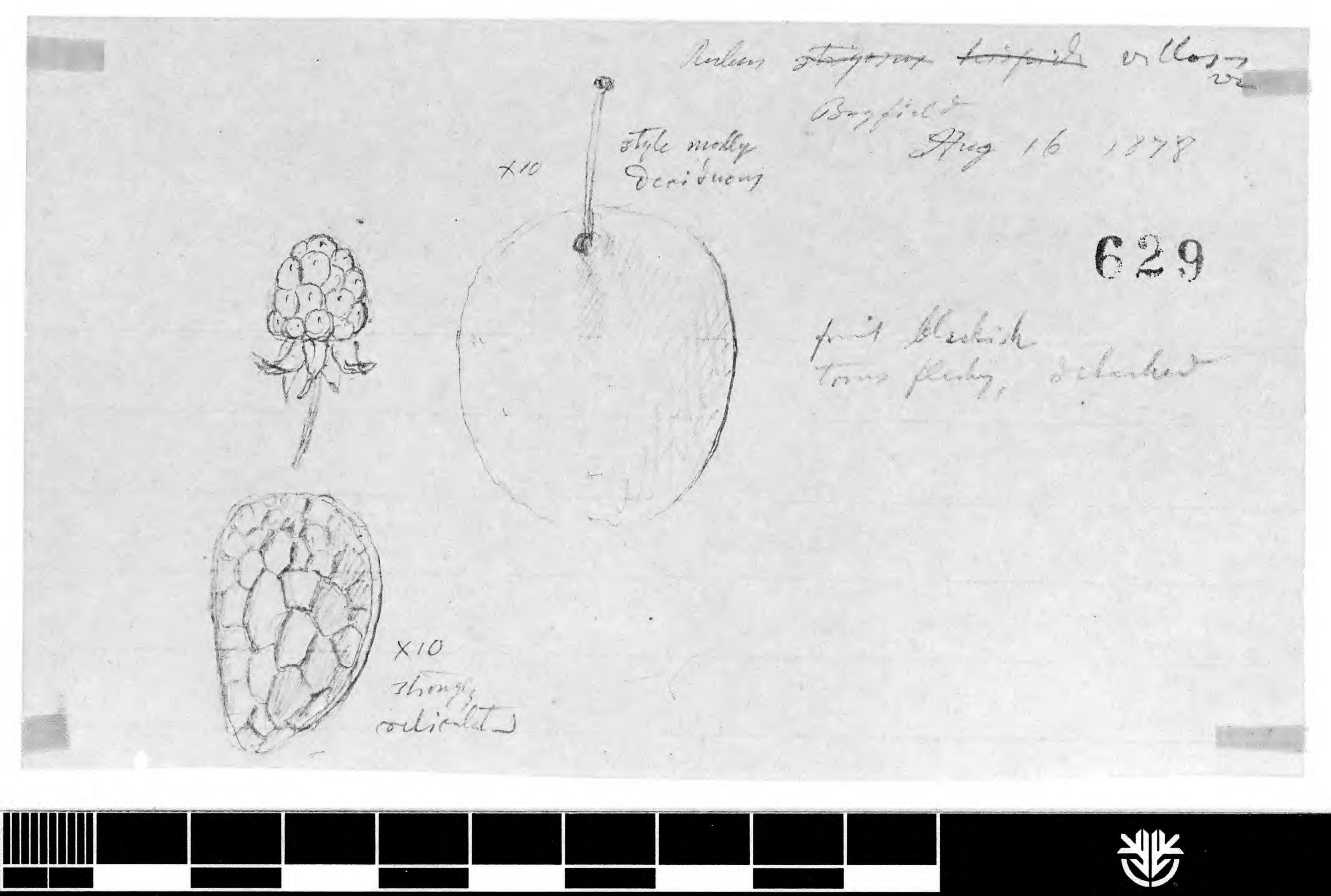


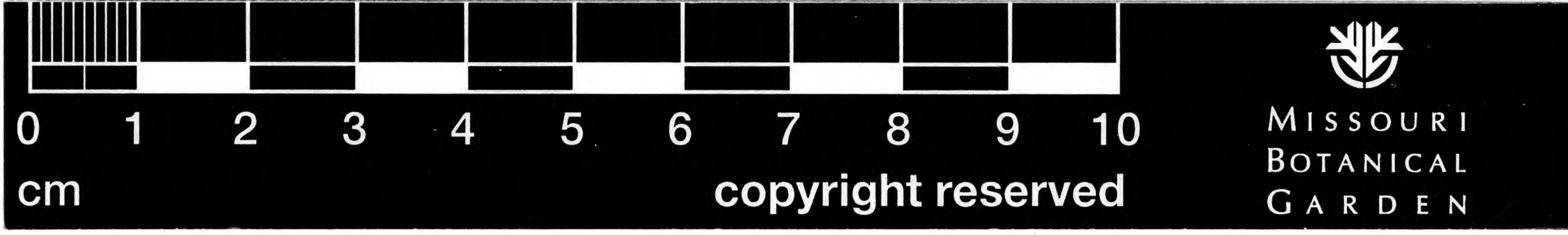


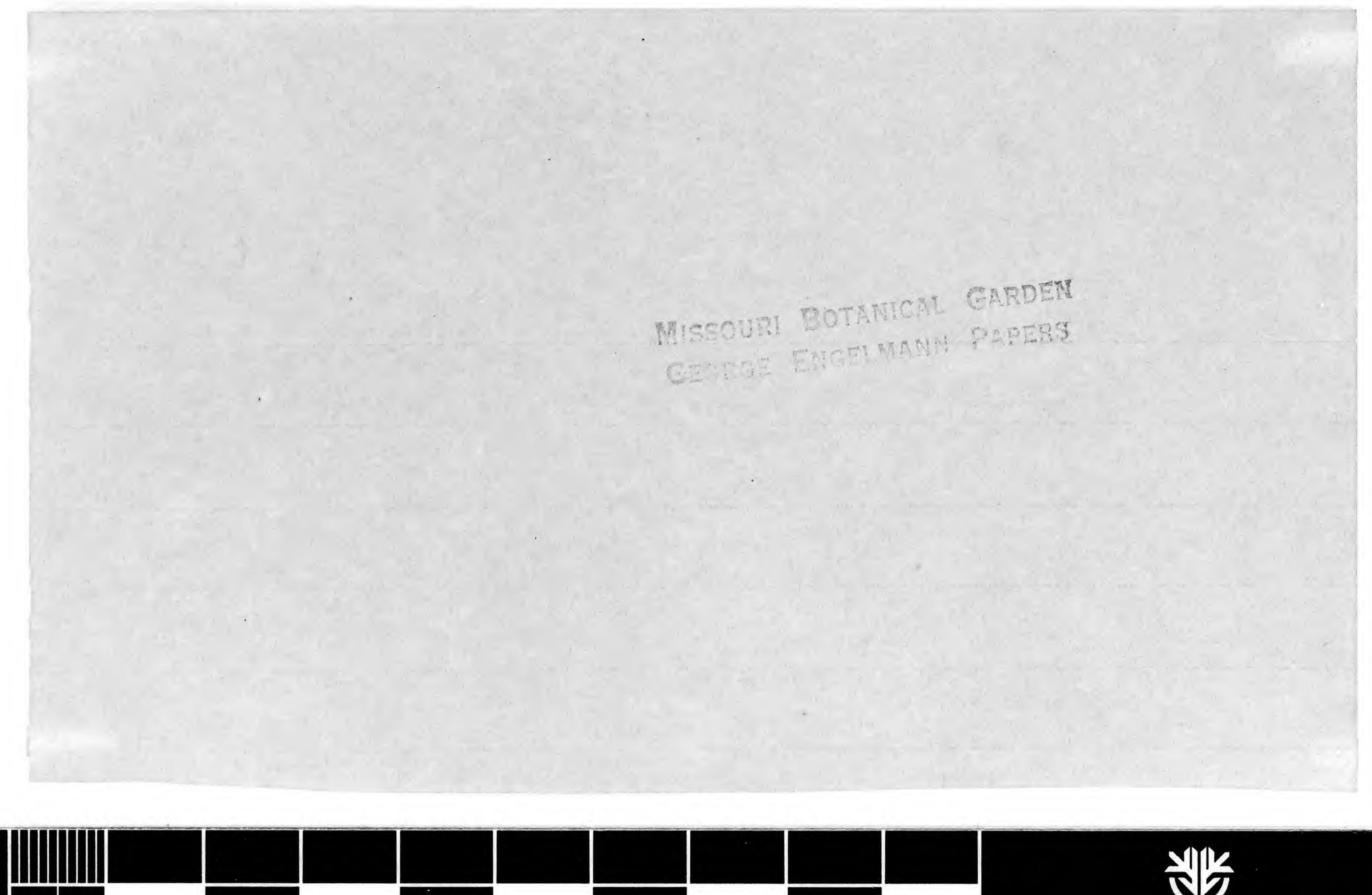


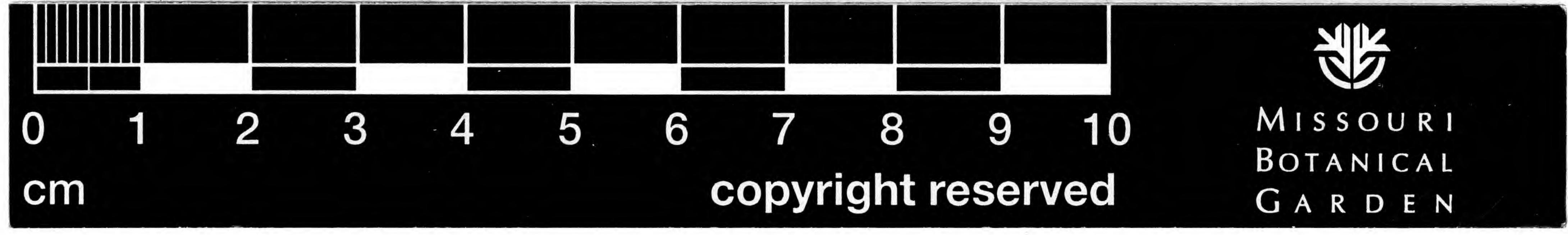
MISSOURI BOTANICAL GARDEN GEORGE ENGELMANN PAPERS

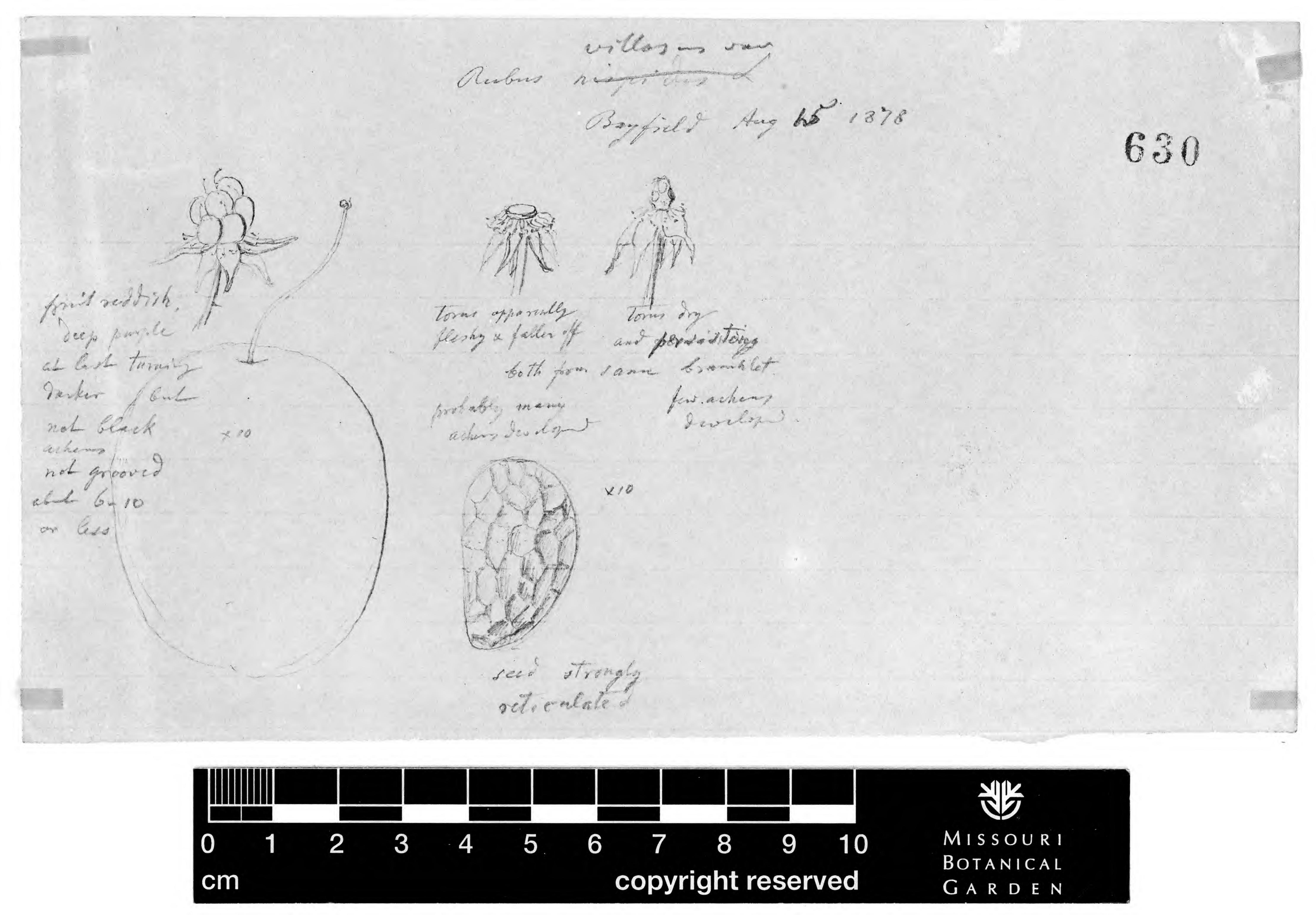




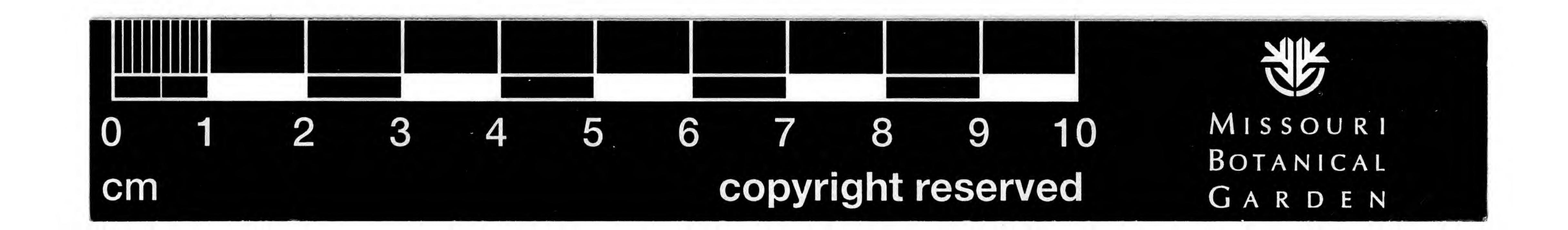


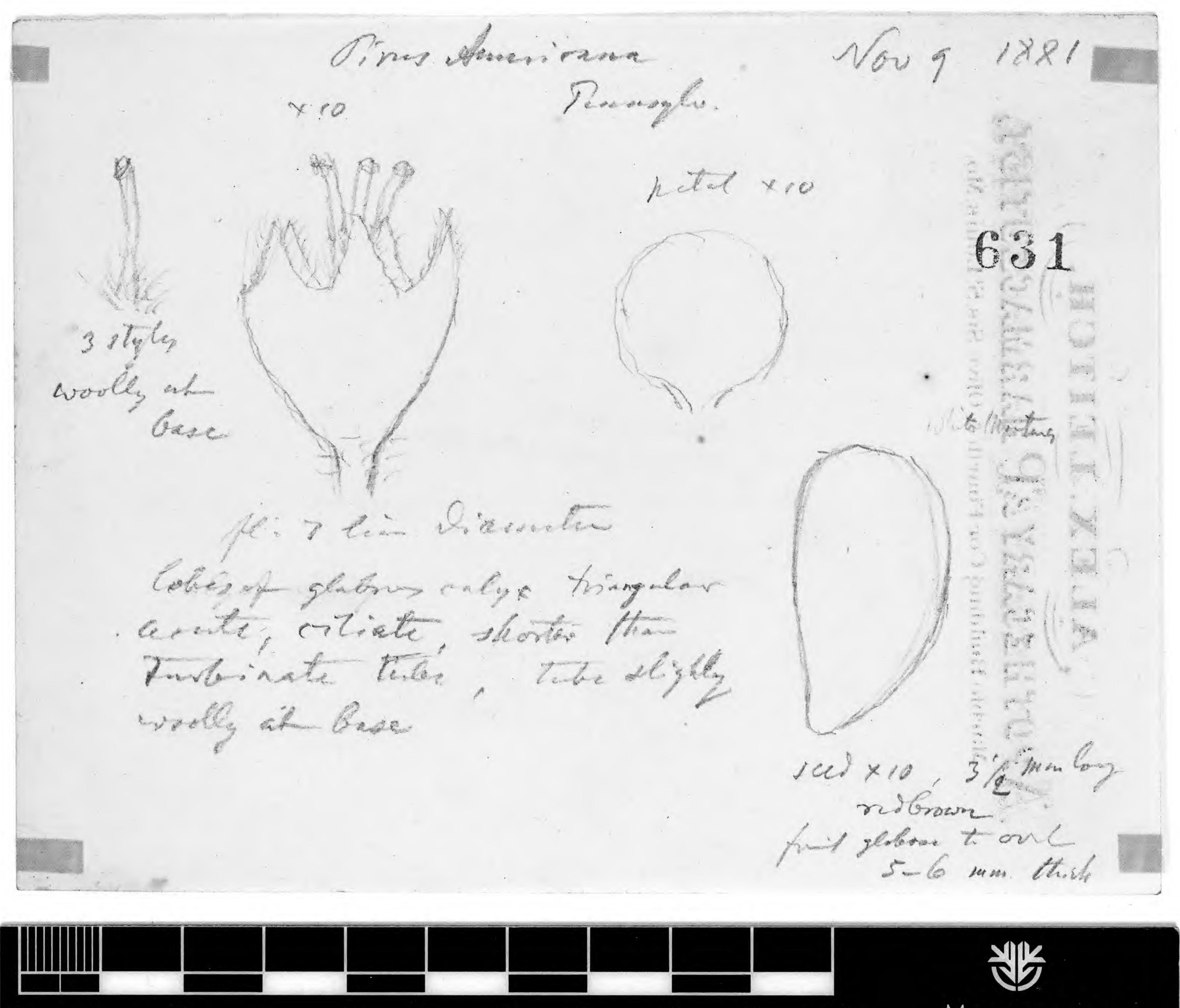






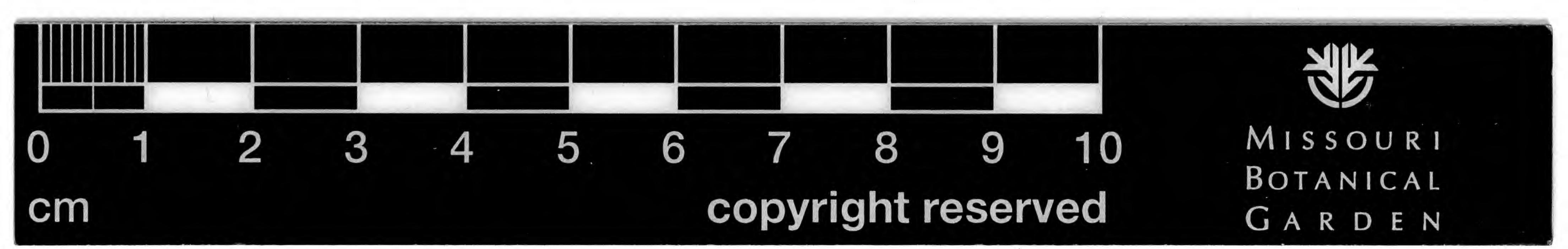
MISSOURI BOTANICAL GARDEN GEORGE ENGELMANN PAPERS







MISSOURI EQUATION FACES





[We solicit the privilege of publishing extracts from correspondence, of interest to the general reader. Correspondence upon Botanical subjects respectfully solicited.]

FEBRUARY 3, 1879.

MR. L. B. CASE:

Dear Sir: I have a very peculiar plant—the Amorphophallus—now in bloom in my greenhouse; it commenced throwing up its bloom about 1st January; it is now about four feet from top of pot. The bloom opens around the stalk, about one foot from the top, (lily shape); the flower and stalk are of a dark purple and spotted—rather snakish in appearance. This blooming stalk goes down in about one month, and then the leaf stalk puts up and makes a very handsome plant through the summer.

Yours,

JAS. HINTON.



S. B. Case

RICHMOND,

U.S. North America.

INDIANA.

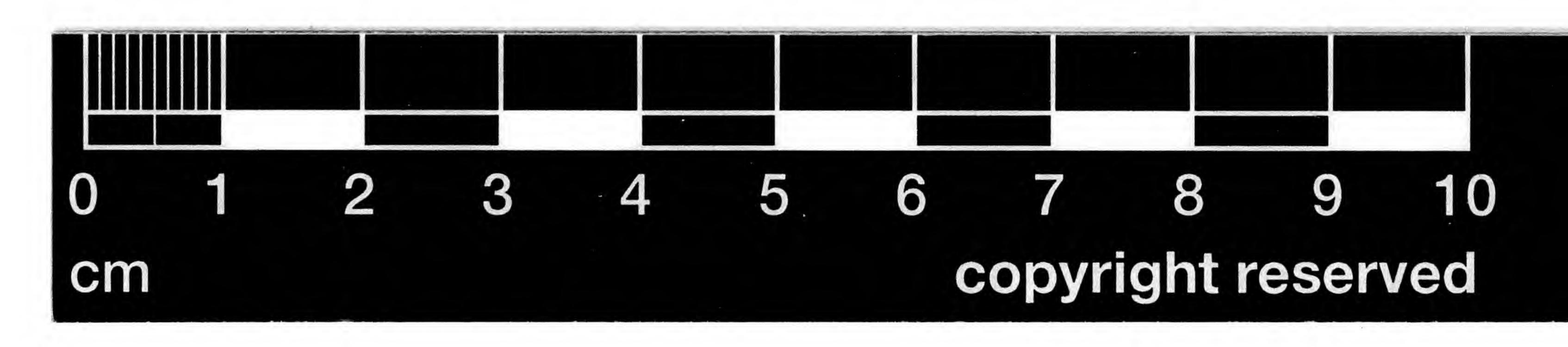
New Orleans, La., January 17, 1879.

L. B. Case, Esq.—Sir: * * * We have had severe cold here this winter, and many plants have suffered destruction—particularly those of a succulent nature. We are not prepared for "zero" in this sunny clime. We longed and prayed for "Jack Frost;" he came furiously, and nearly froze the life out of those "Yellow Jack" had spared.

B.

MANCHESTER, ENGLAND, November 21, 1878.

L. B. Case, Esq.—Dear Sir: * * There is not much new to say, except that since I wrote you last I have visited the Botanical Gardens at Old Trafford, Manchester, on the occasion of the yearly flower show, which continues a week. It was the first time I had the pleasure of seeing the houses and grounds, and can assure you I came away well satisfied that I had spent a few hours there. The gardens are public, and are upheld by the people of Manchester. They are open daily, I believe; the entrance fee is sixpence, except on show days, when it doubles. Besides the yearly flower show, which is a general one, there are special ones; for instance, one week is taken up with roses, another with chrysanthemums, etc. Of course, the general one is of the most interest, and is visited by thousands each day. In comparing it with American flower shows, you don't find the abundance of cut bloom as with you, nor yet the floral designs. Neither do we find the cactus so good and so numerous as in the United States. In foliage plants, too, America excels. But for well grown plants, such as palms, ferns, orchids, azalias, vincas, pelargoniums, tricolor geraniums, and a miscellaneous lot of other plants, England takes the lead. There were plants exhibited from all parts of Great Britain; the best collection, as far as I could judge, was from the nurseries of B. S. Williams, of Upper Holloway, London. I cannot give you a description of the affair—it was simply immense. There seemed to be everything, from the skeletonized frond of Adiantum to the gigantic Ficus elastica of 30 feet. This plant was truly noble; you might climb it like an oak. On one side of it was planted a palm, with leaves the size of an ordinary door, being compound and recurved. On the other side rose a mighty cereus—a high dome of glass covered these three. I name this, because it was the center; from each side the houses branched off in a line for hundreds of yards. The palm house, fernery, and orchid house, were of very special interest; the number of orchids in bloom was astonishing; palms and tree ferns, that made you dizzy to look at their dimensions.





But I think that the sweetest plant I saw was Todea superba, under a glass in the fernery. In addition to the permanent exhibition rooms, there has been added, this last summer, a large tent, the frame work being of iron, which is a fixture; this frame work is covered with sail-cloth. This tent was devoted entirely to plants in bloom, all of which were specimens, and viewed from the foot of the tent it looked like a vast amphitheatre filled with bloom—the pelargoniums and tri-color geraniums being the most conspicuous. These were perfect; their height was about 12 or 15 inches, diameter about 30 inches, and literally covered with bloom—that is, the Lady Washington class. Another little feature I noticed was the way in which some of the varieties of the variegated Hedera were trained, on pyramidal wire frames; these they covered till they were invisible, being 3 to 4 feet high.

I had nearly forgotten to name the Aquatic department. It rather put one in mind of entereing some Paradisaical cavern—the house being sunk in the ground, and the light admitted from above. What between steps, rock and angles, one had to look out for his shin bones. However, here is a water-tank, and in it flourish many

tropical beauties.

In front of this horticultural plenty is the Grand Promenade, decorated with evergreens in tubs, and beyond this a large area of grass, with its music gallery. The gardens are well worth a run through them.

I. B.

Manchester, Eng., February 13, 1879.

L. B. Case.—Dear Sir: * * * Cold weather seems to be a general institution this winter. We have had thirteen weeks of steady frost and snow—so unusual to England, as the winters are generally pretty mild. This is the hardest winter since 1853. Of course, the cold is not so intense as with you, the lowest being 17 degrees below zero.

I. B.

THE LILY NURSERY,
GHENT, BELGIUM, March 1, 1879.

L. B. Case, Esq.—Dear Sir: * * * * This past winter has been the most severe since 1870. Early in December we had our first snow storm, which lasted for a week, and snow fell to the depth of about 4 inches, while an exceedingly cold northern wind prevailed, accompanied by a very low temperature during the ifollowing few weeks. The bed of snow on the ground very fortunately protected the hardy herbaceous plants, roots and bulbs from injury. A little later the weather changed, a southerly wind accompanied by rain set in, lasting three or four days, the snow disappeared quickly and the ground was nearly inundated. Then during the night the wind again changed to the north-east, with falling temperature, transforming the water into a field of ice. This exceedingly cold weather has continued for about six weeks; and I say with regret that trees and shrubs have suffered considerably, while roses and many choice shrubs are killed. The blossoms of fruit trees generally are not much injured. Besides the cold winter, we are having high water in our rivers, and the low adjoining fields are inundated, while from the same cause trade suffers very much, as steam ships, etc., cannot leave our ports regularly. For the past three weeks the temperature has moderated every day, occasionally interrupted by north-east or westerly winds, (both always cold,) and accompanied by hail and snow storms. From the 21st to the 26th of February we had another northerly snow storm, which was extremely severe.

Notwithstanding the lack of sunshine, my nice and most complete collection of *Hepaticas* come in full bloom. It is my favorite little winter flower, of which I mail you a beautiful colored plate, and would be pleased to mail them to every one on

receipt of 12 cents in stamps.*

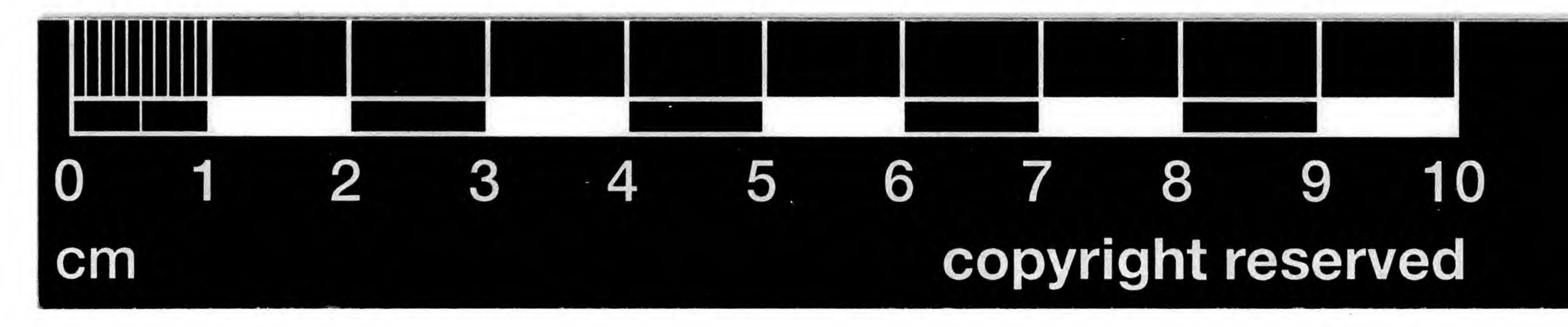
Hoping the weather will change soon, and that the mild spring will replace our severe winter, I remain,

Yours, very truly,

J. VAN DER SWAELMEN.

[*As United States Postage stamps would be of no value in Belgium, we will receive the subscription in stamps and forward the orders with our commercial transactions.—L. B. CASE.]

BEGONIAS SHEDDING THEIR FLOWERS.—Many Begonias have a vicious habit of shedding their male flowers unexpanded. I observe this to occur in plants of different species in different greenhouses, and in some plants out of a number potted and treated alike. Can any of your correspondents assign a reason and suggest a remedy for a habit which detracts so seriously from the successful cultivation of this beautiful family of plants?—P. [Begonias shed their male flowers when not sufficiently watered, or when their roots are destroyed by too much moisture. Some varieties, however, always drop their male blossoms, and such sorts should be thrown away; others drop their male blooms when planted out-of-doors, but retain them when cultivated under glass.—L.]





Nicandra peruviana Mill. physaloides Gaert. Nicotiana alata Lk. et Ott. auriculata Agard. chinensis Fisch. glauca Grah. paniculata L. plumbaginifolia Visian. rustica L. solanifolia Wall. tabacum L. plur. var. Petunia nyctaginiflora Juss. Physalis aequata Jacq. fil. Alkekingi L. angulata L. arborescens L. hirsuta Dun. pubescens L. Saracha umbellata DC. Solanum acanthifolium H. Erf. arboreum H. B. auriculatum Ait. capense Don. capsicoides Mart. cerasiforme L. coccineum Jacq. croceum Don. diphyllum L. esculentum Dun. plur. var. frutescens A. Br. et Bchè haematocarpum Hort. Erf. hystrix R. Br. inaequale Arrab. macrophyllum Hort. Monsp. moschatum Prsl. pseudo-capsicum L. quitense H. B. reclinatum Herit. robustum Wendl. sodomaeum L. tomentosum L. triquetrum Cav.

STAPHYLEACEAE

warszewiczioides H. Hub.

Staplylea colchica Stev. trifolia L.

verbascifolium L.

vescum Hort. Erf.

zuccagnianum Dun.

Withania aristata Pauq.

somnifera Dun.

STERCULIACEAE

Sterculia balanghas L.

Sterculia platanifolia Schott.

TAMARISCINEAE

Tamarix africana Poir. chinensis Low. gallica I. parviflora DC. tetrandra Pall.

TAXINEAE

Podocarpus latifolius Wall. Taxus baccata L.

TERNSTROEMIACEAE

Visnea mocanera L. fil.

TILIACEAE

Entelea palmata Lindl. Grewia asiatica L. nitida Juss. occidentalis L. Sparmannia africana L. Triumfetta velutina Vahl.

TROPAEOLEAE

Tropaeolum lobbianum Hook. -plur. var. majus L. minus L. v. trimaculatum

ULMACEAE

Ostrya carpinifolia Scop. Planera japonica Mig. Richardii Mchx. Ulmus californica Hort. chinensis Pers.

UMBELLIFERAE

Agasyllis caucasica Spr. Ainsworthia cordata Boiss. elegans Boiss. trachycarpa Boiss. Ammi glaucifolium L. visnaga Lam. -var. lejospermum Anethum Sowa Roxb. Angelica pericarpa retusa Andrz. Anthriscus sicula DC. -var. fruct. glabr.

-var. fruct. laev. tuberc.

Artedia squamata L. Athamanta sicula L. Bifora flosculosa Bbrst. Bonannia resinifera Guss. Bubon gummifer L. Bunium bulbocastanum L. Bupleurum aciphyllum W. B. fruticosum L. Gerardi Jacq. gibraltaricum Lam. multinerve DC. nodiflorum Sib. Sm. odontites L. subovatum Link. Caucalis leptophylla L. Conioselinum Fischeri Wimm. Conium maculatum L. Coriandrum melphitense G. et T. testiculatum Bieb. Crithmum maritimum L. Cryptotaenia canadense DC. Daucus aureus Desf. australis Poep. Balansae Coss. Broteri Ten. crinitus Desf. gummifer L.

setulosus Guss. Elaeoselinum maeoides DC. Eryngium amethystinum L. Andersonii Lag. aquifolium Cav. campestre L. creticum Lam. dichotomum Desf. pandanisolium Cham. et Sch. pusillum L. tripartitum Desf. Wrightii A. Gray. Ferula communis L. glauca L.

muricatus L.

nitidus Guss.

setosus Gmel.

Ferulago geniculata Boiss. Foeniculum anisatum Hort. luteum Fisch. Gasparinia virescens Bert. Hasselquitia cordata L. fil. Helosciadium lateriflorum Hook. Heracleum cordatum Prsl. dissectum Ledeb. granatense Boiss.

Heteromorpha arborescens Chm. Imperatoria hispanica Boiss. verticillaris Coll. Krubera leptophylla Hffm.

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MISSOURI BOTANICAL GARDEN

Lagoecia cuminoides L. Libanotis montana DC. Ligusticum Seguieri Koch. Lophocarpus echinophora Bert. Magydaris tomentosa Koch. Oenanthe anomala DC. apiifolia Brot. chaerophylloides Pour. fistulosa L. globulosa L. gymnorhyza Brign. pimpinelloides L. Opopanax chironium Koch. Orlaya maritima Koch. platycarpa Koch. Physocaulis nodosa Tausch. Pimpinella Gussonei Bert. peregrina L. Prangos ferulacea Lindl. Reutera gracilis Boiss. Ridolfia segetum Moris. Scandix australis L. brachycarpa Guss. macrorhyncha F. et M. pecten Veneris L. persica Mart. Seseli elatum Gouan. gummiferum Sm. hippomarathrum L. Sison amomum L. Sium intermedium Sw.

URTICEAE

Smyrnium rotundifolium Mill.

Tordylium lanatum Boiss.

syriacum L.

Zizia aurea Koch.

Torilis helvetica Spr.

Turgenia latifolia Hffm.

Bohemeria biloba Wedd. frutescens Thg. macrophylla Don. nivea Hook, et Arn. Fleurya aestuans Gaudich. Garrya laurifolia Bth. macforiana Hort. Mercurialis annua L. Parietaria diffusa Mert. Urera caracassana Grisch. Urtica balearica L. cannabina L. melastomoides Lam. pilulifera L. rupestris Guss. stachydifolia Kth. et Behè.

VALERIANEAE

Centranthus ruber DC. Fedia cornucopiae Vahl. scorpioides Dufr. Valeriana officinalis L. tuberosa L. Valerianella auricula DC. echinata DC. eriocarpa Desv. -var. fruct. glabris fallax Coss. et Dur. Figarei Boiss. gibbosa DC. lanata DC. lingulata Prsl. microcarpa Lois. Morisonii DC. obtusiloba Boiss. olitoria Mnch. oxyrhyncha F. et M. plagiostephana F. et M. pteropoda Bnge. pumila DC. Soyeri Boiss. szowitiana F. et M. tridentata Krbk. vesicaria Mnch.

VERBENACEAE

Callicarpa americana L. cana L. japonica Thg. tomentosa Hook. Clerodendrum inerme R. Br. ligustrinum R. Br. serotinum Hort. splendens G. Don. undulatum Hort. Duranta brachypoda Tod. Ellisii L. inermis L. integrifolia Tod. microphylla Desf. rostrata Pasq. stenostachya Tod. turbinata Tod. Lantana alba Mill. -var. albo-purpurea -var. grandiflora Bonardi Hort. camara L. coccinea Lodd. flava Medic. var. media lilacina Desf. lundiana Schwer.

Lantana lutea Hort. var. superba mixta L. nivea Vent. radula Sw. Sellowii Lk. et Ott. trifolia L. Youngii Hort. Lippia asperifolia Rich. chamaedryfolia Steud. Stachytarpheta cajennensis Vahl. dichotoma Vahl. fischeriana Hort. Tamonea curassavica Pers. Verbena angustifolia Mchx. aubletia L. v. Drummondii bracteata Cav. caracassana H. B. glandulosa Morren. hispida R. P. pulchella Sweet. teucrioides Gill. urticaefolia L. venosa Gill. Vitex agnus castus L. incisa Lam.

VIOLACEAE

Jonidium polygalaefolium Vent. Viola altaica Ker. arborescens L. arenaria DC. arvensis Sibth. appendiculata DC. calcarata L. v. grandistora elatior Fries. hederacea Labil. hirta L. Jovii Pasc. lactea Rchbch. lutea Huds. Macedoniae Jord. munbyana Boiss. occulta L. odorata L. . —var. suavis palmata L. Patrini DC. persicifolia Roth. pinnata L. primulaefolia L. prionantha Bnge. riviniana Rchbch. suavissima Jord. sylvestris L. var. macrantha tricolor L. Vilsonii Hort.



